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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/501,531 | 07/16/2004 | Willi Schneider | 2104 0070US | 4487 |

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DREISS, FUHLENDORF, STEIMLE & BECKER
POSTFACH 10 37 62
D-70032 STUTTGART,
GERMANY

| EXAMINER | |
|---|---|
| ALI, HYDER | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 3747 | |

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/501,531 | SCHNEIDER, WILLI | |
| | Examiner | Art Unit | |
| | HYDER ALI | 3747 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *10-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 July 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/23/04 & 7/16/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**1. Claims 10-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiroyuki (US 5,390,635).**

As to **Claim 10**, Hiroyuki discloses a method for adjusting a volumetric flow-variable positive displacement pump in an internal combustion engine, the method comprising the steps of:

a) driving the positive displacement pump 24; FIG. 2.

b) transporting fluid to consumption points in the internal combustion engine 21; FIG. 2.

c) determining at least one characteristic of the internal combustion engine; FIG. 2.

d) transmitting said characteristic as an actual value signal to a controller 41; FIG. 2.

e) comparing said actual value signal with a predetermined setpoint value; FIGS. 8,9

f) generating an adjusting signal from a deviation between said actual value signal and said setpoint value; FIGS. 8,9;

g) feeding said adjusting signal to a final control element 27;

h) changing a volumetric flow of the positive displacement pump 24 by means of said final control element as a function of said adjusting signal; and

i) repeating steps a) through h) until said actual value signal is the same as said setpoint value; FIGS. 8,9.

As to **Claim 11**, Hiroyuki discloses the characteristic is a speed of the internal combustion engine sense by the throttle valve sensor 43.

As to **Claim 12**, Hiroyuki discloses said setpoint value comprises a setpoint value range.

As to **Claim 13**, Hiroyuki discloses the volumetric flow is changed only when said adjusting signal exceeds a threshold value.

As to **Claim 14**, Hiroyuki discloses a multi-purpose motor control computer 41 is used as said controller.

As to **Claim 15**, Hiroyuki discloses said motor control computer 41 is supplemented with positive displacement pump data and calculation rules for said setpoint value comparison with said actual value and for generation of said adjusting signal.

As to **Claim 16**, Hiroyuki discloses final control element is actuated against a restoring force 35.

As to **Claim 17**, Hiroyuki discloses restoring force is generated by a restoring spring 35.

As to **Claim 18**, Hiroyuki discloses a delivery volume of the positive displacement pump is reduced on actuation of said final control element. FIGS. 8,9.

As to **Claim 19**, Hiroyuki discloses the positive displacement pump 24 is adjusted to maximum volumetric flow upon failure of a control chain or of an individual component.

**2. Claims 10-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Anamoto et al (US 5,921,758).**

As to **Claim 10**, Anamoto et al discloses a method for adjusting a volumetric flow-variable positive displacement pump in an internal combustion engine, the method comprising the steps of:

a) driving the positive displacement pump 33; FIG. 1.

b) transporting fluid to consumption points in the internal combustion engine 38; FIG. 1.

c) determining at least one characteristic 66 of the internal combustion engine; FIG. 1.

d) transmitting said characteristic 66 as an actual value signal to a controller 34; FIG. 1.

e) comparing said actual value signal with a predetermined setpoint value; FIG. 6.

f) generating an adjusting signal from a deviation between said actual value signal and said setpoint value; FIGS. 6;

g) feeding said adjusting signal to a final control element 74;

h) changing a volumetric flow of the positive displacement pump 33 by means of said final control element as a function of said adjusting signal; and

i) repeating steps a) through h) until said actual value signal is the same as said setpoint value; FIGS. 6.

As to **Claim 11**, Anamoto et al discloses the characteristic 66 is a speed of the internal combustion engine sense by the throttle valve sensor 66.

As to **Claim 12**, Anamoto et al discloses said setpoint value comprises a setpoint value range.

As to **Claim 13**, Anamoto et al discloses the volumetric flow is changed only when said adjusting signal exceeds a threshold value.

As to **Claim 14**, Anamoto et al discloses a multi-purpose motor control computer 34 is used as said controller.

As to **Claim 15**, Anamoto et al discloses said motor control computer 34 is supplemented with positive displacement pump data and calculation rules for said setpoint value comparison with said actual value and for generation of said adjusting signal.

As to **Claim 16**, Anamoto et al discloses final control element is actuated against a restoring force.

As to **Claim 17**, Anamoto et al discloses restoring force is generated by a restoring spring 48.

As to **Claim 18**, Anamoto et al discloses a delivery volume of the positive displacement pump is reduced on actuation of said final control element 74. FIGS. 6.

As to **Claim 19**, Anamoto et al discloses the positive displacement pump 33 is adjusted to maximum volumetric flow upon failure of a control chain or of an individual component

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HYDER ALI whose telephone number is (571) 272-4836. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HENRY YUEN can be reached on (571) 272-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hyder Ali

ha

**Henry C. Yuen**
**Supervisory Patent Examiner**
**Group 3700**